

ABSTRACT

A new nanothermometer comprises, as a temperature sensitive element, a carbon nanotube in which continuous and columnar indium is included, and comprises a temperature-measuring section for measuring the temperature of an environment by measuring the length in the axial direction of the columnar indium, in the temperature sensitive element, which can be changed with a change in the environment temperature. The nanothermometer can be used to measure temperatures in a wide temperature range in an environment having a size of micrometers or less.